

Remarks

Reconsideration and allowance of this application, as amended, are respectfully requested.

The written description portion of the specification, claims 1-19, and the abstract of the disclosure have been editorially amended. New independent claim 20 has been added. Claims 1-20 are now pending in the application. Claims 1 and 20 are independent. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein. No new matter has been introduced through the foregoing amendments.

The specification has been editorially amended for conformance with 37 CFR § 1.77(c), for consistency, and to correct any informalities. The abstract has been editorially amended for conformance with 37 CFR § 1.72(b). The claims have been amended in general to more fully comply with U.S. practice. New claim 20 has been added to further define the scope of protection sought for Applicants' invention. Entry of each of the amendments is respectfully requested.

35 U.S.C. § 103(a) - Neukermans, Anazawa, and Bard

Claims 1-4, 6-10, and 13-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 97/22825 of Neukermans in view of WO 02/24320 of Anazawa et al. (U.S. Patent No. 7,238,325 to Anazawa et al., hereinafter "Anazawa") and further

in view of U.S. Patent No. 5,580,523 to Bard. The examiner acknowledges that "Neukermans does not specifically disclose the channel structures cut out in at least one surface" (Office Action page 4, numbered paragraph 6). The examiner also acknowledges that "[n]either Neukermans nor Anazawa discloses the first and/or second parts are made of a rigid material made from injection molding technology" (Office Action page 4, numbered paragraph 7). In relying upon Bard, however, the examiner asserts that "[i]t would have been obvious . . . to have the layers of the cassette be made of rigid and flexible material such as plastic to be able [to] initiate flow . . . by pressure but allow the cassette to maintain its shape under pressure" (Office Action page 5, numbered paragraph 8).

The rejection of claims 1-4, 6-10, and 13-19 based on Neukermans, Anazawa, and Bard is respectfully deemed to be obviated. For at least the following reasons, the combined disclosures of Neukermans, Anazawa, and Bard would not have rendered obvious Applicants' claimed invention.

Instant claim 1 defines a cassette that includes, *inter alia*, the feature of "at least one of the first part and the second part having a construction that includes a rigid material with a flexible material region associated therewith, with the rigid material and the flexible material region being of a one piece, two-component injection molded construction."

The combined disclosures of Neukermans, Anazawa, and Bard do not teach all of Applicants' claim features. Neukermans and Anazawa are deficient for at least the reasons acknowledged by the examiner. Bard is directed not to a cassette for conveying a fluid but rather to "[a] modular reactor system and method for synthesizing chemical compounds characterized by a uniform temperature throughout the reaction mixture by use of a continuous flow reactor under high pressure" (abstract, lines 1-4) (emphasis added). The examiner relies upon Bard's disclosure in the abstract, in Figures 1a-1d, and at column 5, lines 19-48. But, at column 5, lines 19-48, for example, Bard simply discloses, *almost in passing*, that "[t]he reactor could also be fabricated at one time, alternatively, with plastic materials, by injection molding or casting techniques."

Bard's disclosure of a plastic reactor fabricated by injection molding is considerably different from Applicants' claimed cassette structural feature of "at least one of the first part and the second part having a construction that includes a rigid material with a flexible material region associated therewith, with the rigid material and the flexible material region being of a one piece, two-component injection molded construction." Since Bard is directed to a "reactor system" for synthesizing chemical compounds "under high pressure," Bard most certainly would not be using Applicants' claimed "flexible material" for conveying

a fluid. Bard also fails to disclose Applicants' claimed feature of "the rigid material and the flexible material region being of a one piece, two-component injection molded construction."

In fact, Bard *teaches away from* Applicants' claimed "one piece, two-component injection molded construction." At column 4, lines 30-40, Bard discloses that

{t}he ICS system may also include a support structure for *detachably retaining* the various components of the system. The support structure can be of the "assembly board type" that will contain pre-arranged flow channels and connector ports. *The desired components of the system can be fastened into these connectors by pins. The flow control components that make-up the ICS system can include pumps, flow channels, manifolds, flow restrictors, valves, etc.* These components will have the *necessary fittings that allow them to be sealed with the pre-arranged or selectively located flow channels or connectors.* (Emphasis added)

Clearly, Bard contemplates "detachably" fastening components of his high pressure reactor, such as "pumps, flow channels, manifolds, flow restrictors, [and] valves" with "pins" and "the necessary fittings." That is not Applicants' claimed invention.

Furthermore, there is simply no teaching in any of Neukermans, Anazawa, and Bard that would have led one to select the references and combine them, let alone in a way that would produce the invention defined by Applicants' claim 1.

Therefore, the combined disclosures of Neukermans, Anazawa, and Bard would not have rendered obvious the invention

defined by claim 1. Claims 2-4, 6-10, and 13-19 are allowable because they depend, either directly or indirectly, from claim 1, and for other reasons.

35 U.S.C. § 103(a) - Neukermans, Anazawa, Bard, and Linnemann

Claims 5, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neukermans, Anazawa, and Bard, and further in view of U.S. Patent No. 6,261,006 to Linnemann et al. ("Linnemann").

The rejection of claims 5, 11, and 12 based on Neukermans, Anazawa, Bard, and Linnemann is similarly deemed to be obviated. Claims 5, 11, and 12 all depend, either directly or indirectly, from claim 1. Claim 1 is allowable for at least the reasons explained above. Regardless of what Linnemann may disclose with regard to a membrane pump, that teaching adds nothing that would rectify any of the above-described deficiencies of the asserted Neukermans/Anazawa/Bard combination. Accordingly, claims 5, 11, and 12 are allowable because they depend from claim 1, and for other reasons.

New independent claim 20 has been added to further define the scope of protection sought for Applicants' invention. New claim 20 is also allowable. The cited references neither anticipate nor would have rendered obvious the cassette defined by claim 20.

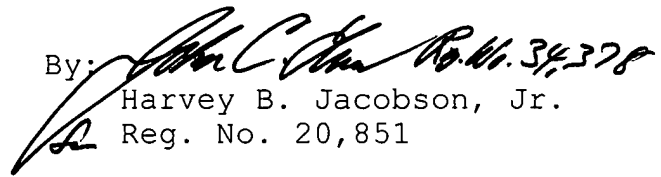
U.S. Appln. No.: 10/525,668
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In view of the foregoing, this application is now in condition for allowance. If the examiner believes that an interview might expedite prosecution, the examiner is invited to contact the undersigned.

Respectfully submitted,

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